

# ENGINEERING MECHANICS: AEROSPACE ENGINEERING

## FOUR-YEAR PLAN

### FOUR-YEAR PLAN EXAMPLE FOUR-YEAR PLAN

#### First Year

Fall	Credits Spring	Credits
CHEM 109 <sup>1</sup>	5 E M A 201 <sup>3</sup>	3
MATH 221	5 MATH 222	4
Commucations A	3 M E 231	3
E M A 200 or M E 201 <sup>2</sup>	3 Liberal Studies Elective or	3
or Liberal Studies Elective	M E 201 <sup>2</sup>	3
	Liberal Studies Elective	3
	<b>16</b>	<b>19</b>

#### Second Year

Fall	Credits Spring	Credits
MATH 234	4 MATH 320	3
PHYSICS 202	5 Technical Elective	3
E M A 202 <sup>4</sup>	3 M E 361	3
E P 271	3 E M A 303 <sup>4</sup>	3
E P D 275 or COM ARTS 105	2 E M A/M E 307 <sup>4</sup>	1
	Liberal Studies Elective	3
	<b>17</b>	<b>16</b>

#### Third Year

Fall	Credits Spring	Credits
E M A 506	3 E M A 545	3
E M A 405	3 INTEREGR 397	3
E M A 542	3 M E 364	3
M E 363 or CIV ENGR 310	3 STAT 324	3
MATH 321	3 Computing Elective	3
	Experimental Mechanics Course <sup>5</sup>	3
	<b>15</b>	<b>18</b>

#### Fourth Year

Fall	Credits Spring	Credits
E M A 469	3 E M A 569	3
E M A 521 <sup>6</sup>	3 E M A 523 or 524 <sup>7</sup>	3
E C E 376 or PHYSICS 321	3 E M A/ASTRON 550, 610, or 642	3
E C E 332 or M E 446	3 Tech Elective	2

Liberal Studies Elective	4 Liberal Studies Elective	3
	<b>16</b>	<b>14</b>

#### Total Credits 131

- <sup>1</sup> It is recommended that students take CHEM 109 Advanced General Chemistry for 5 credits. However, depending on their high school chemistry experience, students may substitute CHEM 103 General Chemistry I and CHEM 104 General Chemistry II for a total of 9 credits.
- <sup>2</sup> E M A 200 or M E 201 are preferred introduction to engineering options. E M A 200 is offered in the fall only. M E 201 can be taken in the first or second semester. If a student begins in another engineering major, other introduction to engineering courses can count for the introduction to engineering requirement.
- <sup>3</sup> Students may substitute PHYSICS 201 General Physics, 5 credits, for E M A 201 Statics, 3 credits, with the approval of their advisor.
- <sup>4</sup> After completing E M A 201 Statics, students may take E M A 202 Dynamics and E M A 303 Mechanics of Materials/E M A/M E 307 Mechanics of Materials Lab in either order or concurrently.
- <sup>5</sup> E M A 611 Advanced Mechanical Testing of Materials or E M A/M E 540 Experimental Vibration and Dynamic System Analysis or E M A/M E 570 Experimental Mechanics or E M A 522 Aerodynamics Lab. Note that E M A/M E 540 Experimental Vibration and Dynamic System Analysis and E M A/M E 570 Experimental Mechanics are typically offered in the fall. E M A 611 Advanced Mechanical Testing of Materials and E M A 522 Aerodynamics Lab are typically offered in the spring.
- <sup>6</sup> M E 563 Intermediate Fluid Dynamics may be substituted for E M A 521 Aerodynamics. Note that M E 563 Intermediate Fluid Dynamics is offered in the spring semester only.
- <sup>7</sup> E M A 523 Flight Dynamics and Control is offered in the Spring semester only. E M A 524 Rocket Propulsion is offered in the Fall semester only.